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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/071,178

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Chih-Lin Hsuan

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EXAMINER

DO, ANH HONG

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/071,178

**Applicant(s)**

HSUAN, CHIH-LIN

**Examiner**

ANH H. DO

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

2. The drawings were received on 3/21/2005. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsujii (U.S. Patent No. 6,766,044).

Regarding claim 1, the method of transforming image data comprising an interest region by wavelet transform signal processing in general as recited in the preamble is provided by Tsujii in at least the abstract.

Tsujii does not explicitly recite the data being "video" data. However, the video data disclosed by Applicant is a single captured image (page 4, lines 29-30, and Fig. 1, image 10), and the data of Tsujii is also a single captured image (e.g., col. 5, line 60),

from conventional sources (which can probably include a video camera, in col. 4, lines 13-17) and the resulting image of Tsujii is understood to be shown on a “video” monitor (col. 11, lines 12-21). Therefore, Official Notice is taken of the conventionality of transforming a video image. It is also argued as noted above that Tsujii can be considered to provide for “video” at least broadly and because both the Applicant and Tsujii process a single captured image. Tsujii can process an image regardless of whether it is taken from a still camera or a video camera. It would have been obvious to one having ordinary skill in the art at the time the invention was made to process a video image as the image of Tsujii, since images of all types (e.g., graphics, video, stills, etc.) typically have regions of interest, which can be processed by Tsujii.

- Transforming the video data to high frequency image data and low frequency image data is provided by the discrete wavelet transformer 2 in Fig. 1 of Tsujii;

- Getting first image data recording first information responding to the interest region of the video data is recited by Tsujii in col. 5, lines 19-24, where mass information provides for interest region (region of interest – ROI), and which is at least inherently recorded. See also col. 5, lines 29-38, with respect to Fig. 3A of Tsujii, which corresponds to the ROI;

- Getting second image data recording second information responding to the interest region of the video data from the high frequency image data; and combining the first image data and the low frequency image data to form interest region data are both provided by Tsujii as indicated in Figs. 2C and 3A, which can clearly show that the ROI is obtained (i.e., recorded) for the high frequency image data (see the larger stars in the

lowest right of Fig. 3A) image data, so that "interest region data" is formed. Combining the ROI and low frequency data is also provided by quantizing (Fig. 1, block 3) the low frequency data (and the high frequency data, from wavelet transformation 2 in Fig. 1) based on the ROI mask (from block 11 in Fig. 1).

- Combining the interest region data and the second image data by bit plane coding to generate display data is provided by the bit plane coding of Tsujii, since all frequencies (Low – LL to high – HH) are coded (and decoded) this way (see Tsujii in Fig. 1, block 4; col. 8, lines 26-28; Figs. 8D and 13A-B; and col. 9, lines 11-17). That this is "display data" is understood as data that can be displayed at least eventually, it's being understood that the compressed data in this case cannot be directly displayed without first decompressing the data. For display data, see col. 11, lines 13-17.

Regarding claim 2, wherein the high frequency image data and the low frequency image data have predetermined frequency bands is clearly provided by Tsujii in Fig. 2C and the second full paragraph in col. 5.

Regarding claim 3, compressing the display data is provided by Tsujii in col. 8, lines 25-26.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsujii (U.S. Patent No. 6,766,044) in view of Li et al. (U.S. Patent No. 6,807,550).

Regarding claim 4, Tsujii provides for claims 1-3 as noted above, and JPEG is mentioned by Tsujii in the Background in col. 1, lines 53-60, but Tsujii does not explicitly provide for JPEG 2000. JPEG 2000 for use in the same environment of ROI processing

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is taught by Li in the last full paragraph in col. 7. Tsujii can use JPEG 2000 as taught by Li, since Li teaches that JPEG 2000 is conventionally used in ROI processing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use JPEG 2000 with Tsujii, since Li teaches advantage of the construct of the Vfile to mane ROI content.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K. MOORE can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 23, 2005.



**ANH HONG DO  
PRIMARY EXAMINER**